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10/764,017	01/23/2004	Nataraj Kumar Gobbak	100204975-1	8963

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EXAMINER	
HAMDAN, WASSEEM H	
ART UNIT	**PAPER NUMBER**
2854	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H'A

Office Action Summary	Application No.	Applicant(s)	
	10/764,017	GOBBAK ET AL.	
	Examiner	Art Unit	
	Wasseem H. Hamdan	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 13-31* is/are rejected.

7)☒ Claim(s) *11 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 9, 10, 13-25 and 27-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Richardson et al. (US Patent 5,748,483).

Regarding claim 1, Richardson et al. discloses a method of correcting an exception [Per applicant's admission in the specification on page 1, line 27, "an exception" is the same as "an error condition"] during a printing process [FIGS. 1 and 2; column 4, lines 66-67; column 5, lines 1-4] at least partially controlled by a plurality of print process modules associated with a printing device [column 2, lines 22-29; column 6, lines 7-12; 102], the method comprising:

monitoring, from a self-correcting module [column 6, lines 7-12], a state of each of a plurality of the print process modules, wherein the print process modules interact according to a set of rules to control the printing process [column 2, lines 30-40];

determining that an event [according to the applicant's specification on page 11, line 2, "an event" is the same as "an exception" and "an exception" is "an error condition" and it is the same as "a fault"] has occurred [column 2, line 35], and setting a current state of the at least one print process module to a default condition [column 2, lines 40-45. In Richardson et al. "The system controller is further configured to generate error-recovery signals in response to error signals generated by the collator and printer controllers, thereby causing the modular printing

system to automatically recover from printer and collator errors". Technically, it is the same as setting the system (as claimed) to default condition, because technically in the automatic recovery, it is basically that the programmed controller generates the signal to the modules in sequences to go through initialization and each module will put back to its initial states, and hence each module will put back to its default condition or state, i.e. automatic recovery, see also Richardson et al. column 6, lines 7-12].

Regarding claim 2, Richardson et al. discloses determining that an event has occurred includes determining that the printing device is hung [column 1, lines 44-47; column 4, lines 63-67; 102 (paper-jams are considered to be errors, and errors cause the system to pause or hung until the recovery takes place. Even when the system pauses for few milliseconds, it is considered that the system is paused or hunged)].

Regarding claim 3, Richardson et al. discloses determining that the printing device is hung is based on at least one predetermined rule and the state of at least one print process module [column 1, lines 44-47; column 2, lines 32-35; column 4, lines 63-67 (paper-jams are considered to be errors, and errors cause the system to pause or hung until the recovery takes place. Even when the system pauses for few milliseconds, it is considered that the system is paused or hunged)].

Regarding claim 4, Richardson et al. discloses monitoring includes receiving a status message from each of the printing process modules into a global event history queue of the self-

correcting module [column 33, lines 59-64. In Richardson et al. generating a job lists after system manager provides snapshots of current status of various modules is considered to be the same as the claimed limitation for global event history].

Regarding claim 5, Richardson et al. discloses determining includes examining the global event history queue to determine whether the conditions of the predetermined rule are met [column 33, lines 64-67].

Regarding claim 6, Richardson et al. discloses determining further includes verifying that the conditions of the predetermined rule remain satisfied over a predetermined period of time [column 13, lines 43-46].

Regarding claim 7, Richardson et al. discloses setting is accomplished at least in part by sending a reset command to the at least one print process module from the self-correcting module [column 2, lines 40-45; column 6, lines 7-14].

Regarding claim 9, Richardson et al. discloses the plurality of print process modules includes a paper path module [column 2, lines 29-32].

Regarding claim 10, Richardson et al. discloses the paper path module includes a print controller and an engine controller [column 2, lines 22-27].

Regarding claim 13, Richardson et al. discloses each of the print process modules is stored as firmware within the printing device [column 6, lines 7-17; column 34, lines 18-25].

Regarding claim 14, Richardson et al. discloses a method of correcting an exception [column 2, lines 22-29. Per applicant's admission in the specification on page 1, line 27, "an exception" is the same as "an error condition"] during a printing process in a printing device [FIGS. 1 and 2; column 4, lines 66-67; column 5, lines 1-4; 102], comprising:

monitoring a current state of a plurality of print process modules [column 2, lines 30-40] in the printing device [FIGS. 1 and 2; 102] , the print process modules being configured to at least partially control the printing process [column 2, lines 22-29; column 6, lines 7-12],

determining an expected state of at least one print process module [column 2, line 35],

comparing the current state to an expected state of the at least one print process module [column 23, lines 6-15] ;

detecting a discrepancy between the current state and the expected state [column 23, lines 6-15], and

setting the current state of the at least one print process module to a default condition [column 2, lines 40-45. In Richardson et al. "The system controller is further configured to generate error-recovery signals in response to error signals generated by the collator and printer controllers, thereby causing the modular printing system to automatically recover from printer and collator errors". Technically, it is the same as setting the system (as claimed) to default condition, because technically in the automatic recovery, it is basically that the programmed controller generates the signal to the modules in sequences to go through initialization and each

module will put back to its initial states, and hence each module will put back to its default condition or state, i.e. automatic recovery, see also Richardson et al. column 6, lines 7-12].

Regarding claim 15, Richardson et al. discloses wherein the plurality of print process modules includes a job module, a paper path module, and a data path module [FIGS. 1 and 2; column 2, lines 1-45; column 4, lines 53-57; column 6, lines 7-17, meet the claim language because, as described in the "Microsoft Press Computer Dictionary", Third Edition on pages 312-313, a Module is:

1. In programming, a collection of routines and data structures that performs a particular task or implements a particular abstract data type. Modules usually consist of two parts: an interface, which lists the constants, data types, variables, and routines that can be accessed by other modules or routines, and an implementation, which is private (accessible only to the module) and which contains the source code that actually implements the routines in the module. *See also* abstract data type, information hiding, Modula-2, modular programming.

2. In hardware, a self-contained component that can provide a complete function to a system and can be interchanged with other modules that provide similar functions. *See also* memory card, SIMM."].

Regarding claim 16, Richardson et al. discloses wherein monitoring the current state includes receiving a status message from each of the print process modules at a self-correcting module [column 33, lines 59-64].

Regarding claim 17, Richardson et al. discloses wherein determining includes determining an expected state for the at least one print process module based on an event history and a predetermined event rules [column 33, lines 59-64; according to the applicant's specification on page 11, line 2, "an event is the same as "an exception" and "an exception" is the same as "an error condition or state" and it is the same as "a fault". In Richardson et al. generating a job lists after system manager provides snapshots of current status of various modules is considered to be the same as the claimed limitation for global event history].

Regarding claims 18 and 20, Richardson et al. discloses wherein self-correcting module is the stored at least partially as firmware of the printing device [column 6, lines 7-17. In Richardson et al. the "programmable readable memory" that is disclosed in column 34, lines 18-25, is considered to be firmware or where the firmware resides, which meets the claim language].

Regarding claim 19, Richardson et al. discloses wherein the self-correcting module is stored at least partially within software in communication with the printing device through a network [731].

Regarding claim 21, Richardson et al. discloses a self-correcting printing system [FIGS. 1 and 2; column 2, lines 43-45] comprising a printing device [102] having an instruction set including a plurality of print process modules configured to at least partially control a printing

process in the printing device [column 2, lines 22-29; column 6, lines 7-12], a self-correcting module [column 2, lines 44-45] including:

a module status monitor configured to monitor a current state of at least a plurality of print process modules of the instruction set [column 2, lines 30-40; column 33, lines 59-64];

a plurality of event rules that describe a manner in which the plurality of print modules interact [column 6, lines 7-2; column 33, lines 59-64],

an event history configured to store information relating to a state of the print process modules [column 33, lines 59-64; according to the applicant's specification on page 11, line 2, "an event is the same as "an exception" and "an exception" is the same as "an error condition or state" and it is the same as "a fault". In Richardson et al. generating a job lists after system manager provides snapshots of current status of various modules is considered to be the same as the claimed limitation for global event history],

a hang detector configured to detect a hang condition among the plurality of print process modules based on the event history and event rules [column 1, lines 44-47; column 4, lines 63-67 (paper-jams are considered errors, and errors cause the system to pause or hung until the automatic recovery occurred, even when the system pause in few milliseconds, it is considered that the system is paused or hunged); column 6, lines 7-17; column 33, lines 59-67], and

a correction mechanism configured to change the current state of the at least one print process module to a default state, upon detection of the hang condition [column 2, line 35; column 2, lines 40-45. In Richardson et al. "The system controller is further configured to generate error-recovery signals in response to error signals generated by the collator and printer controllers, thereby causing the modular printing system to automatically recover from printer

and collator errors". Technically, it is the same as setting the system (as claimed) to default condition, because technically in the automatic recovery, it is basically that the programmed controller generates the signal to the modules in sequences to go through initialization and each module will put back to its initial states, and hence each module will put back to its default condition or state, i.e. automatic recovery, see also Richardson et al. column 6, lines 7-12].

Regarding claim 22, Richardson et al. discloses wherein the hang detector further includes a comparison mechanism configured to determine an expected state of the at least one print process module, based on the event history and event rules, and to detect a discrepancy between the expected state and the current state of the at least one print process module [column 23, lines 6-15; column 33, lines 59-67].

Regarding claim 23, Richardson et al. discloses wherein the plurality of print process modules includes a job module, a paper path module, and a data path module [FIGS. 1 and 2; column 2, lines 1-45; column 4, lines 53-57; column 6, lines 7-17, meet the claim language because, as described in the "Microsoft Press Computer Dictionary", Third Edition on pages 312-313, a Module is:

1. In programming, a collection of routines and data structures that performs a particular task or implements a particular abstract data type. Modules usually consist of two parts: an interface, which lists the constants, data types, variables, and routines that can be accessed by other modules or routines, and an implementation, which is private (accessible only to the module) and which contains the source code that actually implements the routines in the module. *See also* abstract data type, information hiding, Modula-2, modular programming.

2. In hardware, a self-contained component that can provide a complete function to a system and can be interchanged with other modules that provide similar functions. *See also* memory card, SIMM."].

Regarding claim 24, Richardson et al. discloses wherein the plurality of print process modules are stored as firmware on the printing device [column 6, lines 7-17. In Richardson et al. the "`programmable readable memory`" that is disclosed in column 34, lines 18-25, is considered to be firmware or where the firmware resides, which meets the claim language].

Regarding claim 25, Richardson et al. discloses wherein the self-correcting module is stored at least partially within software in communication with the printing device through a network [731].

Regarding claim 27, Richardson et al. discloses wherein the module status monitor is configured to monitor the current state of the print process modules by receiving status messages from each of the print process modules, and storing the status messages in the event history [column 33, lines 59-67. In Richardson et al. wherein the system manager 730 generates job lists and allows users to create and edit collation sequences, printer jobs, images for printing, and fonts, technically the created job list has to be stored in memory disclosed on column 34, in order the user to edit the list].

Regarding claim 28, Richardson et al. discloses wherein the self-correcting module further includes a timer configured to determine whether conditions of a rule are satisfied for a predetermined period of time, and wherein the correction mechanism is configured to change the current state of the at least one print process module after the predetermined period of time has elapsed [column 13, lines 44-46; column 14, lines 6-9; 735a; 735b].

Regarding claim 29, Richardson et al. discloses a computer program product [FIGS. 1 and 2; column 2, lines 21-26] comprising:

a computer usable medium having computer readable program code embodied therein for causing correction of an exception condition [column 33, lines 59-64; according to the applicant's specification on page 11, line 2, "an event is the same as "an exception" and "an exception" is the same as "an error condition or state" and it is the same as "a fault"] within firmware [column 6, lines 7-17. In Richardson et al. the "programmable readable memory" that is disclosed in column 34, lines 18-25, is considered to be firmware or where the firmware resides, which meets the claim language] of a printing device [102], the computer readable program code in said computer program product comprising:

computer readable program code configured to cause the printing device to determine a current state [column 33, lines 59-64] of at least one module of the firmware;

computer readable program code configured to cause the printing device to compare the current state to an expected state [column 23, lines 6-15],

computer readable program code configured to cause the printing device to detect a discrepancy between the current state and the expected state [column 23, lines 6-15], and

computer readable program code configured to cause the printing device to set the current state to a default condition [column 2, lines 40-45. In Richardson et al. "The system controller is further configured to generate error-recovery signals in response to error signals generated by the collator and printer controllers, thereby causing the modular printing system to automatically recover from printer and collator errors". Technically, it is the same as setting the system (as claimed) to default condition, because technically in the automatic recovery, it is basically that the programmed controller generates the signal to the modules in sequences to go through initialization and each module will put back to its initial states, and hence each module will put back to its default condition or state, i.e. automatic recovery, see also Richardson et al. column 6, lines 7-12].

Regarding claim 30, Richardson et al. discloses further comprising computer readable program code configured to cause the printing device to determine the expected state from an event [according to the applicant's specification on page 11, line 2, "an event is the same as "an exception" and "an exception" is the same as "an error condition or state" and it is the same as "a fault"] history [column 33, lines 59-64. In Richardson et al. the generating a job lists after system manager provides snapshots of current status of various modules is considered to be the same as the claimed for limitation global event history].

Regarding claim 31, Richardson et al. discloses wherein the expected state is determined from the event history using a set of event rules [column 33, lines 59-64. In Richardson et al. the generating a job lists after system manager provides snapshots of current status of various

modules and allows users to create and edit collation sequences, and it can be configured to display mechanical performance statistics of the various modules and also efficiency statistics of operators, a benefit of this programmed controller is that it provides a comprehensive and integrated error detection and recovery system, which technically means the same as expected state is determined from the event history using a set of event rules].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson et al. (US Patent 5,748,483) in view of Enomoto et al. (Pub. No. US 2003/0184798 A1).

Regarding claim 8, Richardson et al. discloses the essential elements of the claimed invention, but Richardson et al. is silent about resending at least a portion of the print job to the at least one print process module. However, Enomoto et al. discloses automatically resending at least a portion of the print job to the at least one print process module [page 4, section [0047] lines 5-11]. It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify the teachings of Richardson et al. by including resending at least a portion of the print job to the at least one print process module, since having automatically resending at least a portion of the print job to the at least one print process module would be beneficial for the purpose of recovering some of the lost data.

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson et al. (US Patent 5,748,483) in view of Farrell et al. (US Patent 5,179,410).

Regarding claim 26, Richardson et al. discloses the essential elements of the claimed invention, but Richardson et al. is silent about printing device further includes a laser print mechanism. However, Farrell et al discloses printing device further includes a laser print mechanism [column 4, lines 3-4]. It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to modify the teachings of Richardson et al. by including printing device further includes a laser print mechanism, since having printing device further includes a laser print mechanism would be beneficial for the purpose of having a high quality printout.

Allowable Subject Matter

6. Claims 11 and 12 are allowed.

Response to Arguments

7. Applicant's arguments filed on 04/11/2005, on pages 11, 14 and 16, that "Richardson et al. does not disclose monitoring a state of a print process module, and does not disclose setting a current state of a print process module to a default condition. In fact, Richardson et al. is focused entirely on the processed sheets. Richardson et al. does not even consider the state of the modules themselves." The examiner respectfully disagrees, because with the broadest reasonable interpretation of claim language, Richardson et al. (US Patent 5,748,483), column 33,

lines 56-67, column 34, lines 18-36, discloses a plurality of System managers, such as 730 which monitors and controls multiple printing systems. System manager 730 is an IBM compatible personal computer, which monitors and controls multiple printing systems as described herein. System manager 720 also provides snapshots of the current status of various modules such as the collator 100, printer 102, stacker 104. Additionally, the system manager 730 generates job lists and allows users to create and edit collation sequences, printer jobs, images for printing, and fonts. Another advantage of system manager 730 is that it can be configured to display mechanical performance statistics of the various modules and also efficiency statistics of operators. The systems shown in FIGS. 1 and 2 address problems recognized with existing systems by providing a number of important advantages related to maintenance reduction and increased flexibility and productivity within the printing process. Examples of these advantages include: automatic detection of erroneously processed sheets; automatic recovery (in Richardson et al. means that setting a current state of a print process to a default condition) from such an undesired state; and processing the sheets to minimize jamming, which frequently occurs in conventional systems while they process sheets during the printing stage. Therefore the rejection is proper.

Applicant's arguments on page 11, that "there is no mention in Richardson et al. reference of error signals addressing errors in the modules. The examiner respectfully disagrees, because Richardson et al., column 6, lines 7-12, discloses a programmed controller enhances the modularity of the present printing system by providing a control system that integrates control of all the modules and track assemblies. A benefit of this programmed controller is that it provides

a comprehensive and integrated error detection and recovery system. If the programmed controller detects an erroneously processed document, it will generate an error signal, determine a recovery strategy, and then generate an error-recovery signal. Another benefit is that the programmed controller is flexible and can be adapted to many different combinations of modules. Therefore the rejection is proper.

Applicant's arguments on pages 12, 13 and 21, that "Richardson et al. fails to disclose or suggest any event history queue, and correspondingly fails to disclose or suggest any examination of event history in determining whether conditions of a predetermined rule are met. While Richardson et al. does consider generating of job lists, such job lists cannot be considered event history queues." The examiner respectfully disagrees, because Richardson et al., column 33, lines 56-67, column 34, lines 18-36, discloses a plurality of System managers, such as 730 which monitors and controls multiple printing systems. System manager 720 also provides snapshots of the current status of various modules. Another advantage of system manager 730 is that it can be configured to perform statistics of the various modules (in which statistics are equivalent to global event history) and also provides efficiency statistics of operators; the statistics are stored (queued) in a programmable readable memory (or memories). Technically the coprocessor board 720 (system manager) includes a co-microprocessor 724, which is a second processor, and RAM 722. The microprocessor 718 and co-microprocessor 724 communicate through RAM 722. The control unit 716 also includes a serial communication controller 726 that is linked to both the microprocessor 718 and the coprocessor board 720. The serial communication controller 726 provides a communication interface between the central

control unit 716 and a daisy chain-type local area network (daisy chain network) 731 from which a person having ordinary skill in the art can conclude that the data is stored in the memory as explained above, and the data is provided to the operator as current status (snapshots) and hence as statistics [disclosed by Richardson et al.: column 33, lines 56-67]. Richardson et al. discloses that all the system managers provide monitoring data and snapshots to the main processor and that they are stored. Hence the main processor will output statistics. In addition, Richardson et al. discloses that the system provides real-time status function in a table format [Richardson et al. column 32, lines 52-65], which reads on the broad claim language. Therefore the rejection is proper.

Applicant's arguments on page 8, that "claim 8 recites newly added limitation "automatically resending at least a portion of the print job to the at least one print process module." The argument has been addressed as set forth in the office action.

Applicant's arguments on page 17, that "Claim 26 stands rejected under 35 U.S.C. section 103(a) based on Richardson In view of Farrell (US 5.179,410). Applicants respectfully disagree. Farrell adds nothing to the discussion above conceming claim 21 (from which claim 26 depends). Claim 26 thus is allowable for at least the same reasons as set forth with respect to claim 21 above. The rejection of claim 26 under 35 U.S.C. section 103(a) based on Richardson in view of Farrell thus should be withdrawn." The examiner respectfully disagrees, because Farrell et al discloses printing device further includes a laser print mechanism [column 4, lines 3-4], which Richardson et al. is silent about. Therefore the rejection is proper.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wasseem H. Hamdan whose telephone number is (571) 272-2166. The examiner can normally be reached on M-F (first Friday off) 6:30 AM- 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wasseem H. Hamdan

May 02, 2005

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